Amendments to the Claims:

This listing of claims replaces all prior listings and versions of claims in this application:

1. (currently amended) A method for detecting or diagnosing prostate cancer in an individual comprising the step of

determining levels of macrophage migration inhibitory factor (MIF) in the serum of the individual~~, wherein serum MIF levels of greater than about 5 to about 10 ng/ml indicates the presence of prostate cancer~~ ; and

detecting or diagnosing prostate cancer where the serum MIF levels are greater than about 5 to about 10 ng/ml.

2. (original) The method of claim 1, wherein the determining step is accomplished by immunoassay.

3. (original) The method of claim 2, wherein the immunoassay is ELISA.

4. (original) The method of claim 2, wherein in the immunoassay is an immunoblot.

5. (original) The method of claim 2, wherein the immunoassay is a protein array.

6. (withdrawn) The method of claim 1, wherein the determining step is accomplished by measuring nucleic acid levels.

7. (withdrawn) The method of claim 6, wherein the nucleic acid is mRNA.

8. (withdrawn) The method of claim 7, wherein the mRNA codes for macrophage MIF.

9. (withdrawn) The method of claim 6, wherein the nucleic acid levels are measured by Northern blot.

10. (withdrawn) The method of claim 6, wherein the nucleic acid levels are measured by microarray analysis.

11. (original) The method of claim 1, wherein the determining step comprises the steps of

contacting the serum of the individual with a molecule that specifically binds the macrophage MIF; and

detecting the presence of binding between the macrophage MIF and the molecule.

12. (original) The method of claim 11, wherein the molecule is an antibody.

13. (original) The method of claim 12, wherein the antibody is selected from the group consisting of monoclonal antibodies and polyclonal antibodies.

14. (original) The method of claim 11, wherein the molecule is labeled.

15. (original) The method of claim 14, wherein the label is selected from the group consisting of biotin, fluorescent molecules, radioactive molecules, chromogenic substrates, chemi-luminescence, and enzymes.

16. (withdrawn) The method of claim 1, wherein the determining step comprises the steps of

isolating RNA from the serum;

contacting the isolated RNA with a probe that specifically hybridizes with the mRNA of the macrophage MIF; and

detecting the presence of binding between the probe and the mRNA of the macrophage MIF.

17. (withdrawn) The method of claim 16, wherein the probe is a nucleic acid probe.

18. (withdrawn) The method of claim 16, wherein the probe is an oligonucleotide.

19. (withdrawn) The method of claim 16, wherein the probe is labeled.

20. (withdrawn) The method of claim 19, wherein the label is selected from the group consisting of biotin, fluorescent molecules, radioactive molecules, chromogenic substrates, chemi-luminescence, and enzymes.

21. (withdrawn) The method of claim 16, wherein the probe is attached to a solid substrate.

22. (withdrawn) The method of claim 16, wherein the probe is on a microarray.

23. (original) The method of claim 1, further comprising the step of comparing the levels of MIF in the serum of the individual to the MIF levels of prostate cancer patients.

24. (withdrawn) A method for monitoring the treatment of an individual with prostate cancer comprising the steps of

administering a pharmaceutical composition for treating prostate cancer to the individual; and

determining levels of macrophage migration inhibitory factor (MIF) in the serum of the individual.

25. (withdrawn) The method of claim 24, wherein the determining step is accomplished by immunoassay.

26. (withdrawn) The method of claim 25, wherein the immunoassay is ELISA.

27. (withdrawn) The method of claim 25, wherein in the immunoassay is an immunoblot.

28. (withdrawn) The method of claim 25, wherein in the immunoassay is an immunoblot.

29. (withdrawn) The method of claim 25, wherein the immunoassay is a protein array.

30. (withdrawn) The method of claim 24, wherein the determining step is accomplished by measuring nucleic acid levels.

31. (withdrawn) The method of claim 30, wherein the nucleic acid is mRNA.

32. (withdrawn) The method of claim 30, wherein the mRNA codes for macrophage MIF.

33. (withdrawn) The method of claim 30, wherein the nucleic acid levels are measured by Northern blot.

34. (withdrawn) The method of claim 30, wherein the nucleic acid levels are measured by microarray analysis.

35. (withdrawn) The method of claim 24, wherein the determining step comprises the steps of

contacting the serum of the individual with a molecule that specifically binds the macrophage MIF; and

detecting a presence of binding between the macrophage MIF and the molecule.

36. (withdrawn) The method of claim 35, wherein the molecule is an antibody.

37. (withdrawn) The method of claim 36, wherein the antibody is selected from the group consisting of monoclonal antibodies and polyclonal antibodies.

38. (withdrawn) The method of claim 35, wherein the molecule is labeled.

39. (withdrawn) The method of claim 38, wherein the label is selected from the group consisting of biotin, fluorescent molecules, radioactive molecules, chromogenic substrates, chemi-luminescence, and enzymes.

40. (withdrawn) The method of claim 24, wherein the determining step comprises the steps of

isolating RNA from the serum;

contacting the isolated RNA with a probe that specifically hybridize with the mRNA of the macrophage MIF; and

detecting a presence of binding between the probe and the mRNA of the macrophage MIF.

41. (withdrawn) The method of claim 40, wherein the probe is a nucleic acid probe.

42. (withdrawn) The method of claim 40, wherein the probe is an oligonucleotide.

43. (withdrawn) The method of claim 40, wherein the probe is labeled.

44. (withdrawn) The method of claim 43, wherein the label is selected from the group consisting of biotin, fluorescent molecules, radioactive molecules, chromogenic substrates, chemi-luminescence, and enzymes.

45. (withdrawn) The method of claim 40, wherein the probe is attached to a solid substrate.

46. (withdrawn) The method of claim 40, wherein the probe is on a microarray.

47. (withdrawn) The method of claim 24, further comprising the step of comparing the levels of MIF in the serum of the individual over time to determine the effect of the pharmaceutical composition on the progression of the prostate cancer.

48. (withdrawn) A method for screening for an agent capable of modulating the onset or progression of prostate cancer comprising

exposing an individual to the agent; and

determining levels of macrophage migration inhibitory factor (MIF) in the serum of the individual.

49. (withdrawn) The method of claim 48, wherein the determining step is accomplished by immunoassay.

50. (withdrawn) The method of claim 49, wherein the immunoassay is ELISA.

51. (withdrawn) The method of claim 49, wherein in the immunoassay is an immunoblot.

52. (withdrawn) The method of claim 49, wherein the immunoassay is a protein array.

53. (withdrawn) The method of claim 48, wherein the determining step is accomplished by measuring nucleic acid levels.

54. (withdrawn) The method of claim 53, wherein the nucleic acid is mRNA.

55. (withdrawn) The method of claim 54, wherein the mRNA codes for macrophage MIF.

56. (withdrawn) The method of claim 53, wherein the nucleic acid levels are measured by Northern blot.

57. (withdrawn) The method of claim 53, wherein the nucleic acid levels are measured by microarray analysis.

58. (withdrawn) The method of claim 48, wherein the determining step comprises the steps of

contacting the serum of the individual with a molecule that specifically binds the macrophage MIF; and

detecting a presence of binding between the macrophage MIF and the molecule.

59. (withdrawn) The method of claim 58, wherein the molecule is an antibody.

60. (withdrawn) The method of claim 59, wherein the antibody is selected from the group consisting of monoclonal antibodies and polyclonal antibodies.

61. (withdrawn) The method of claim 58, wherein the molecule is labeled.

62. (withdrawn) The method of claim 61, wherein the label is selected from the group consisting of biotin, fluorescent molecules, radioactive molecules, chromogenic substrates, chemi-luminescence, and enzymes.

63. (withdrawn) The method of claim 48, wherein the determining step comprises the steps of

isolating RNA from the serum;

contacting the isolated RNA with a probe that specifically hybridize with the mRNA of the macrophage MIF; and

detecting the presence of binding between the probe and the mRNA of the macrophage MIF.

64. (withdrawn) The method of claim 63, wherein the probe is a nucleic acid probe.

65. (withdrawn) The method of claim 63, wherein the probe is an oligonucleotide.

66. (withdrawn) The method of claim 63, wherein the probe is labeled.

67. (withdrawn) The method of claim 66, wherein the label is selected from the group consisting of biotin, fluorescent molecules, radioactive molecules, chromogenic substrates, chemi-luminescence, and enzymes.

68. (withdrawn) The method of claim 63, wherein the probe is attached to a solid substrate.

69. (withdrawn) The method of claim 63, wherein the probe is on a microarray.

70. (withdrawn) The method of claim 48, further comprising the step of comparing the levels of MIF in the serum of the individual over time to determine the effect of the agent on the progression of the prostate cancer.

71. (withdrawn) A method for monitoring the progression of prostate cancer comprising determining levels of macrophage migration inhibitory factor (MIF) in the serum of the individual.

72. (withdrawn) The method of claim 71, wherein the determining step is accomplished by immunoassay.

73. (withdrawn) The method of claim 72, wherein the immunoassay is ELISA.

74. (withdrawn) The method of claim 72, wherein in the immunoassay is an immunoblot.

75. (withdrawn) The method of claim 72, wherein the immunoassay is a protein array.

76. (withdrawn) The method of claim 71, wherein the determining step is accomplished by measuring nucleic acid levels.

77. (withdrawn) The method of claim 76, wherein the nucleic acid is mRNA.

78. (withdrawn) The method of claim 77, wherein the mRNA codes for macrophage MIF.

79. (withdrawn) The method of claim 76, wherein the nucleic acid levels are measured by Northern blot.

80. (withdrawn) The method of claim 76, wherein the nucleic acid levels are measured by microarray analysis.

81. (withdrawn) The method of claim 71, wherein the determining step comprises the steps of

contacting the serum of the individual with a molecule that specifically binds the macrophage MIF; and

detecting a presence of binding between the macrophage MIF and the molecule.

82. (withdrawn) The method of claim 81, wherein the molecule is an antibody.

83. (withdrawn) The method of claim 82, wherein the antibody is selected from the group consisting of monoclonal antibodies and polyclonal antibodies.

84. (withdrawn) The method of claim 81, wherein the molecule is labeled.

85. (withdrawn) The method of claim 84, wherein the label is selected from the group consisting of biotin, fluorescent molecules, radioactive molecules, chromogenic substrates, chemi-luminescence, and enzymes.

86. (withdrawn) The method of claim 71, wherein the determining step comprises the steps of

isolating RNA from the serum;

contacting the isolated RNA with a probe that specifically hybridize with the mRNA of the macrophage MIF; and

detecting the presence of binding between the probe and the mRNA of the macrophage MIF.

87. (withdrawn) The method of claim 86, wherein the probe is a nucleic acid probe.

88. (withdrawn) The method of claim 86, wherein the probe is an oligonucleotide.

89. (withdrawn) The method of claim 86, wherein the probe is labeled.

90. (withdrawn) The method of claim 89, wherein the label is selected from the group consisting of biotin, fluorescent molecules, radioactive molecules, chromogenic substrates, chemi-luminescence, and enzymes.

91. (withdrawn) The method of claim 86, wherein the probe is attached to a solid substrate.

92. (withdrawn) The method of claim 86, wherein the probe is on a microarray.

93. (withdrawn) The method of claim 71, further comprising the step of monitoring the levels of MIF in the serum of the individual over time to track the progression of the disease.